

Tornadoes

The approach of spring throughout the world is widely anticipated. Spring means that the winter months, with their chilly winds and short daylight hours are over. Home gardeners and farmers look forward to going out to prepare for the growing season. But in the United States and Canada, the coming of spring, particularly the months from March through May, also signify the start of tornado season.

Tornadoes most often form when thunderstorms develop with violently rotating columns of air in contact with clouds the earth's surface. This creates a continuous updraft of air. These winds are most often at velocities of 100 miles per hour or less in the updraft, but can exceed 250. There are several types of tornadoes to include waterspouts, but potentially, the most damaging storms are spawned during the formation of super cell thunderstorms, which can also produce large hail storms. These are most common in the Midwestern United States and are fueled by the clashing of dry air over the plains and the influx of moist, tropical air from the Gulf of Mexico.

Before you get too comfortable and think that you may be safe from the need to be aware of tornadoes, know that all 50 states have experienced them. Tornadoes are most common in the Great Plains states, but states within the Ohio River valley and the southeastern states also have frequent storms. More than 1,000 tornadoes occur in the United States each year, giving us the distinction of having the most in the world. Also, though March through August are peak months for tornadoes, they can occur throughout the year if atmospheric conditions are very unstable with the convergence of strong air masses.

Tornado strength is measured by the Fujita scale, which ranges from F0 with wind strength of up to 72 miles per hour, to F5 with maximum velocities of 318 miles per hour. The classification is based on physical damage/evidence left at the scene. An F0 tornado is classified as a "Gale tornado". An F5 is classed as "Incredible". Anyone who has gone through an F5 tornado should be able to vouch for that description! Most knowledgeable sources cite that the great majority are in the F0 to F2 range (up to 157 miles per hour).

Technology has greatly aided man's ability to better predict and warn of the formation of tornadoes. However, these events may still occur with little advance warning and for those of us who live in areas where severe thunderstorms and tornadoes are facts of life, prudence requires that we have in place plans for these storm events.

Home Plan Preparations

Homeowners should prepare for all storm events in almost the same manner. The first step is basic awareness of whether the event will occur and act accordingly. Next item is to make certain that your home and property are insured for loss. After these two items, you can then proceed to:

- ✓ Identify a safe place to gather in the event of a tornado event. This can be a hallway in the center of the home, basement, bathroom, closet or other room in the lowest level of the home. Keep this area free of items that could become missiles if your home is hit. If in a multi-floor building, your best bet will be an interior hallway as close to the ground as possible.
- ✓ Assemble a disaster kit. This kit should include canned foods, can opener, water (3 gallons per person is recommended by the American Red Cross), bedding or sleeping bags, battery powered flashlights and radios. Also include tools for cutting off utilities (especially gas) and a first aid kit. As many of us may have these items at any given time for other calamities (hurricanes, winter storm events), they should be inspected in spring.

At your workplace, if a tornado occurs in your area the local management should have occupant emergency plans in place which would include where employees should seek shelter. Of particular importance is the evacuation of employees away from windows and into interior hallways.

Warnings and Watches

Local government agencies, television and radio stations, and the National Weather Service are all sources to monitor for information. Tornado watches and warnings are most often issued by county or city emergency management authorities, who in turn monitor and rely on the National Weather Service or local meteorologists. A tornado watch means that conditions are ripe for the formation of a tornado in your area. When watches are issued, it is time to turn on the radio or TV to monitor the situation. We also now have the ability to stay tuned in by computer, thanks to the Internet. Stay alert, as conditions may change dramatically and very quickly. These advances in weather prediction, communications, and stronger building codes have helped to dramatically reduce the loss of life from tornado events.

Tornado warnings are issued when a tornado has been sighted, and may be moving towards a given area. This sighting may be the actual formation of the funnel cloud that we are familiar with and seen by witnesses such as fire and law enforcement officers, or now thanks to technology, spotted with Doppler radar. In the event that a tornado warning has been issued for your location, go immediately to the safe haven you have selected. If you are outside, hurry into a nearby sturdy building, into the basement if possible. If in a field, or forest for example, seek shelter in the nearest low lying area.

Should you live in a mobile home or find yourself in your car when a tornado strikes, leave it immediately for safer shelter. If driving and you are thinking of outrunning a tornado, keep in mind that tornadoes can travel at up to 70 miles per hour (ground speed), with high wind effects that can extend for two miles. You will lose that race, so get to the nearest available shelter or low lying area.

After the Storm Passes

As with hurricanes, several things can occur which can imperil your life that you need to be on the alert for. First and foremost are downed electrical lines and poles. Regard all downed lines as energized, and do not approach them, nor allow anyone that is not a utility or fire person to do so. Areas served by natural gas lines may experience damage and leaks, with potential fire and explosion hazards. For lighting, you should use flashlights, not candles or fuel burning lamps. Monitor your local conditions by radio or television for the status of whether the storm is over. As you are able, render whatever assistance that you can to local authorities and your neighbors.